REMARKS

The foregoing amendments and these remarks are in response to the Office Action dated February 8, 2010. Applicant respectfully requests a three month extension of time and authorization is given to charge the appropriate fees to Deposit Account No. 50-0951.

At the time of the Office Action, claims 1-14 were pending. Claims 7-14 were withdrawn in a previously issued Restriction Requirement. In the Office Action, claims 1-6 were rejected under 35 U.S.C. §112, second paragraph. Claims 1-6 were rejected under 35 U.S.C. §102(e). The rejections are discussed in more detail below.

I. Rejections under 35 U.S.C. §112

Claim 1-6 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In particular, the claims were deemed to be generally narrative, failing to conform with current U.S. practice. Appropriate amendments are made herein, and withdrawal of the rejection is therefore respectfully requested.

II. Rejections based upon art

Claims 1-6 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Publication No. 2004/0047777 to Pettit (hereafter "*Pettit*"). Applicant submits the claims are patentable over this reference.

According to the Office Action, *Pettit* discloses a method of feeding a first gas flow of hydrocarbon fuel into inlet 40 in a parallel, coaxial direction to the longitudinal axis C of the reactor 10. However, in *Pettit* inlet 40 actually refers to a steam inlet and not to a hydrocarbon inlet, hydrocarbons being fed into the reactor 10 only through inlets 20 or 400. See for instance paragraphs [0026] and [0045] related to the embodiments of figures 2 and 5. In this respect, it seems that paragraph [0044] contains a clerical error since it indicates that "fuel and steam enter through inlets 40 and 400", while in the subsequent paragraph the opposite is stated, in line with paragraph [0026].

More relevant to this, however, is the fact that contrary to what asserted in the Office Action, the feed direction of the flow entering into the reactor 10 through inlet 40 is tangential to

the reactor longitudinal axis. This also applies if inlets 24, 400, 290 of figures 2 and 5 are considered. Indeed these inlets are all associated with radial swirlers, which generate a tangential velocity profile of the flows entering the common volume 22 of reactor 10 (see for instance paragraphs [0026], [0043] and [0045]). The flows entering the reactor 10 through these inlets cannot be considered as being fed into the reactor in a direction coaxial to the longitudinal axis of the latter. In *Pettit*, the only flow that might be considered as fed into the reactor 10 in a feed direction, which is substantially coaxial to the longitudinal axis of the reactor, is the fuel flow entering the reactor 10 through inlet 20. In the embodiment of figure 2 of *Pettit* this flow is utilized for the start-up and for the normal operation while in the embodiment of figure 5 for the start-up only (see for instance paragraphs [0022], [0025] and [0044]). In this case, however, it is important to note that no rotating swirling motion is given to such fuel flow, the mixing in the common volume 22 taking place by means of the swirling motion of the other flows fed tangentially to the common volume 22.

This is exactly the opposite of what it is performed with the method recited in present claim 1, in which the flow that is fed into the reactor in a feeding direction substantially coaxial to the longitudinal axis of the reactor is subjected to a rotating swirling motion.

Thus, no confusion can arise with the embodiment of figure 2 of *Pettit* mentioned by the Examiner. Indeed, contrary to what stated in the Office Action, it is only the air flow, fed tangentially into the reactor 10, which is given a rotating swirling motion (through swirler 38) in *Pettit*, while the fuel flow having a feeding direction coaxial to the reactor axis is not swirled before entering the common volume 22. Also in the embodiment of figure 5 (described at paragraph [0045] of *Pettit*), the flows entering into the common volume 22 with a rotating motion are not fed in a direction coaxial to the longitudinal axis of the reactor.

Independent claim 1 is thus believed patentable over the cited prior art for the foregoing reasons. The dependent claims are also believed allowable because of their dependence upon an allowable base claim, and because of the further features recited.

III. Conclusion

Applicants have made every effort to present claims which distinguish over the prior art, and it is thus believed that all claims are in condition for allowance. Nevertheless, Applicants

invite the Examiner to call the undersigned if it is believed that a telephonic interview would expedite the prosecution of the application to an allowance. In view of the foregoing remarks, Applicants respectfully request reconsideration and prompt allowance of the pending claims.

Respectfully submitted,

Date: 8/9/10

Mark D. Passler, Registration No. 40,764
Sarah E. Smith, Registration No. 50,488
AKERMAN SENTERFITT
Post Office Box 3188
West Palm Beach, FL 33402-3188
Telephone: (561) 653-5000